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Serial No. 10/810,459

LISTING OF THE CLAIMS

1 (Original) A method for detecting presence of a
2 user at a telecommunication terminal, comprising the steps of:
3 testing acoustic paths communicating audio
4 information from and back to the telecommunication terminal;
5 and
6 determining the presence of the user based on

changes in the acoustic paths.

- 2. (Original) The method of claim 1 wherein the step
 of testing comprises the steps of forming a model of the
 acoustic paths;
 detecting modifications in the acoustic paths to update
 the model of the acoustic paths; and
 the step of determining comprises the step of using
 the detected modifications to determine changes in the acoustic
 paths.
- 3. (Original) The method of claim 2 wherein the step of detecting comprises the steps of applying audio information transmitted from the telecommunication terminal to the model of the acoustic paths;

receiving the transmitted audio information back by 5 the telecommunication terminal via the acoustic paths; 6

determining a difference between an output of the 7 model of acoustic paths from the received audio information; 8

and 9

calculating a correction to the model of the acoustic 10 paths using the difference and transmitted audio information.

- 4. (Original) The method of claim 1 wherein the audio information is at one of within human hearing, above human 2 hearing and below human hearing. 3
- 5. (Original) The method of claim 1 wherein the step 1 of determining the presence comprises the steps of developing 2 the model of the acoustic paths with the user presence and not 3 presence at the telecommunication terminal; and calculating a threshold of changes in the model of the 5 acoustic paths that represents the presence or non-presence of the user at the telecommunication terminal.
 - 6. (Canceled)
 - 7. (Canceled)
 - 8. (Canceled)

7	s. (Original) All apparatus for detecting presence of a
2	user at a telecommunication terminal, comprising:
3	a transmitter for transmitting audio information;
4,	a receiver for receiving the transmitted audio
5	information via acoustic paths;
6	a model of the acoustic paths for using the audio
7	information before transmission and for producing an audio
8	output;
9	a comparator for determining a difference between the
10	audio output and received audio information;
11	a modifier for iteratively generating modifications for
12	the model of the acoustic paths in responsive to the difference
13	and audio information before transmission; and
14	a controller responsive to the modifications for
15	detecting the presence or non-presence of the user at the
16	telecommunication terminal.

1 10. (Original) The apparatus of claim 9 wherein the
2 controller further configured for determining modifications when
3 the user is presence and when the user is not presence; and
4 the controller calculating a threshold from the
5 determined modifications indicating the presence or non6 presence of the user.

- 11. (Original) The apparatus of claim 9 wherein the
- audio information is at one of within human hearing, above 2
- human hearing and below human hearing. 3
- 12. (Original) The apparatus of claim 11 wherein the 1
- type of the audio information is controlled by the controller. 2
- 13. (Original) An apparatus for detecting presence of 1
- a user at a telecommunication terminal, comprising: 2
- an echo canceller for canceling echoes caused by 3
- acoustic paths to audio information from and back to the echo 4
- canceller; and 5
- a controller responsive to changes in the echo 6
- canceller for determining the presence and non-presence of the 7
- user at the telecommunication terminal. 8
- 14. (Original) The apparatus of claim 13 wherein the 1
- audio information is at one of within human hearing, above 2
- human hearing and below human hearing. 3
- 15. (Original) The apparatus of claim 14 wherein the 1
- type of the audio information is controlled by the controller. 2
- 16. (Original) The apparatus of claim 13 wherein the 1
- echo canceller comprises a model of the acoustic paths;

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a modifier for generating modifications to the model

based on changes to the acoustic paths; and

the controller responsive to the generated 5

modifications for determining the presence or non-presence of 6

the user at the telecommunication terminal. 7

- 17. (Original) The apparatus of claim 16 wherein the 1
- modifier responsive to a difference in an output of the model of 2
- the acoustic paths to audio information before transmission 3
- from the echo canceller and received audio information via the 4
- acoustic paths for generating the modification based on the 5
- difference and the audio information before transmission. 6
- 18. (Amended) An apparatus A method for 1
- determining presence of a user at a telecommunication 2
- terminal, comprising: 3
- an echo detector for detecting echoes caused by 4
- acoustic paths to audio information from an echo detector and 5
- back to the echo detector by the echo detector; and 6
- a controller responsive to changes in the eche 7
- detector for determining in response to changes in the echo 8
- detector by a controller the presence and non-presence of the 9
- user at the telecommunication terminal. 10

- 19. (Amended) The apparatus method of claim 18
- 2 wherein the audio information is at one of within human
- 3 hearing, above human hearing and below human hearing.
- 1 20. (Amended) The apparatus method claim 19
- 2 wherein the type of the audio information is controlled by the
- 3 controller.
- 1 21. (Amended) The apparatus method of claim 18
- 2 wherein the echo detector comprises a model of the acoustic
- з paths;
- a modifier for generating modifications to the model
- based on changes to the acoustic paths by a modifier; and
- 6 the controller responsive to the generated
- 7 modifications for determining in response to the generated
- 8 modifications by the controller the presence or non-presence of
- 9 the user at the telecommunication terminal.
- 1 22. (Amended) The apparatus method of claim 21
- 2 wherein the modifier responsive to a difference in an output of
- 3 the model of the acoustic paths to audio information before
- 4 transmission from the echo detector and received audio
- 5 information via the acoustic paths for generating the
- 6 modification based on the difference and the audio information
- 7 before transmission.

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- 23. (Canceled)
- 24. (Canceled)
- 25. (Canceled)
- 26. (Canceled)
- 27. (Canceled)
- 28. (Canceled)
- 29. (Canceled)
- 30. (Canceled)
- 31. (Canceled)
- 32. (Canceled)
- 33. (Canceled)
- 34. (Canceled)
- 35. (Canceled)

- 36. (Canceled)
- 37. (Canceled)